

University of Groningen

Multinational cash management and conglomerate discounts in the euro zone

Eije, Henk von; Westerman, Wim

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2001

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Eije, H. V., & Westerman, W. (2001). *Multinational cash management and conglomerate discounts in the euro zone*. s.n.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Multinational Cash Management and Conglomerate Discounts in the Euro Zone

Henk von Eije and Wim Westerman ¹

SOM-theme A Primary processes within firms

SOM-theme E Financial markets and institutions

Also downloadable in electronic version: <http://som.rug.nl/>

¹ The authors work at the Faculty of Management and Organisation of the University of Groningen, The Netherlands. The authors are indebted to suggestions and comments of Marc Padberg, Jacco Keijzer, Henk Ritsema, Bob Scapens and anonymous referees. Of course the usual disclaimer remains.

Abstract

We discuss the impact of liberalisation, deregulation and the introduction of a single currency on cash management within multinationals in the euro zone. The developments in the euro zone reduce financial market imperfections in transferring cash and diminish the need for separate local cash holdings. This facilitates the centralisation of cash management and headquarters' financial control. Increased financial power of multinational headquarters, moreover, offers opportunities for disintermediation. By exploiting these options multinationals in the euro zone can start to reap additional benefits of internal financing and conglomerate discounts of euro zone multinationals may diminish.

1. Introduction

Formerly, European financial markets were characterised by the existence of market imperfections. This was especially the case for the short-term financial markets. Since the revival of the European Common Market, as initiated by the White Paper of 1985², a number of these imperfections have gradually disappeared. This process is fuelled once more by the introduction of the euro in the period 1999-2002. Most of the literature on these changes focuses on the consequences for macro-economic and monetary policy and development, but much less attention is given to the impact of these changes for non-financial euro zone³ multinationals.

We discuss in this paper the consequences of the changing financial market circumstances for these companies. In particular we will concentrate on the consequences for cash management within multinational euro zone firms⁴.

² *Completing the Internal Market*, White paper from the Commission to the European Council, 1985.

³ The euro zone is often considered to be the group of 12 countries within the European Community that introduces the euro as a single currency. These are Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Spain. Moreover, smaller countries like Andorra, Monaco and Vatican City will also be using the euro and we include them in the euro zone. However, other countries or regions like Serbia and Kosovo that will switch from German marks to euros are not considered by us to be part of the euro zone.

⁴ We mainly address here multinationals that operate completely within the euro zone, but other multinationals may also be affected, like for example US based multinationals with subsidiaries within the euro zone.

Cash management is a topic that is addressed mainly by practitioners and by scholars who study cash management practices or conduct financial modelling, but it can also be approached from a theoretical perspective. In this respect two distinct approaches can be distinguished. Firstly, cash management can be considered as a stand-alone topic within the management of short-term assets and the question is addressed how much cash is needed in comparison to other liquid assets. It is the main approach in textbooks on short-term financial management (e.g. Hill and Sartoris, 1995; Maness and Zietlow, 1998). Secondly, cash management theories can start with the perfect markets assumptions of Modigliani and Miller (Modigliani and Miller, 1958; Miller and Modigliani, 1961). The theory then suggests that companies need no cash at all unless market imperfections urge companies to hold it (Van Horne, 2002). Transaction costs involved in frequently attracting additional debt and/or equity -e.g. if cash funds are needed to pay suppliers or employees- are high. Therefore it may be worthwhile to hold cash funds, even if these funds do not generate any return. Also bankruptcy costs come to the fore as a reason for cash holdings. If creditors are not paid in time, they may force the company into bankruptcy and the shareholders and managers try to avoid the concomitant costs.

In this paper we follow the latter approach. The developments within the euro zone have reduced market imperfections and we evaluate how these have affected cash management in multinationals. We add the context of a multinational, a firm that has operating subsidiaries in at least four countries, because major developments in

the financial markets of the euro zone have their impact across countries and do not only affect local companies. Moreover, multinationals are more complex than single-country companies and it is usual to find a corporate headquarter and local subsidiaries. Managers of local subsidiaries can be considered to be the agents of the board members at the multinational headquarter, while the board members in their turn are agents of the shareholders. In particular the agency relationships between local and headquarter managers is important here because the control of cash is a determinant in exercising power. Managers of local subsidiaries might like to keep as much cash as possible within their realm. According to Jensen (1986), free cash (flows) may introduce agency costs. Moreover, the investment in cash, bank accounts and short term paper does not give high returns. For these reasons the value of the multinational may decline if unnecessary amounts of cash are left at the local level. In that case the internal financial market within the multinational is inadequate and the company may show a "conglomerate discount" when compared to a comparable set of stand-alone companies.

In section 2 we present the relevant theory. In section 3 we address the impact of liberalisation and deregulation on the financial choices available to multinationals. In section 4 we analyse the impact of the introduction of a single currency. In section 5 we present the concomitant developments of multinational cash management systems. In section 6 we discuss the implications of these changes for

headquarters' control and conglomerate discounts. Finally, section 7 provides the conclusions.

2. Conglomerate benefits or discounts

Multinationals being a sub-sample of conglomerates, the literature thereon is relevant here. Financial literature has been involved with the value of conglomerates for a long time. While diversification theory based on Markowitz (1952) suggested that a conglomerate could benefit from the reduction of total risk, further developments in risk theory (Sharpe, 1964) stressed that shareholders could diversify their portfolio themselves and that they did not need any help from the companies in which they invest. The formation of a conglomerate would not add value to the shareholders. For that reason finance theory has been searching for other benefits of amalgamated firms, and also for the disadvantages, because empirical evidence has shown that in general a take-over adds value only to the shareholders of the target firm.

One major study of the Beatrice company (Baker, 1992) revealed that the value of conglomerates may have changed over time. During the first part of the last century mergers benefited the participating companies because the conglomerate headquarter could add value. In particular financial, juridical, managerial knowledge and financial resources were scarce and a conglomerate could more easily apply these

scarce and valuable resources than single companies. However, business schools have made business knowledge available for many people and now, because that knowledge is less scarce, single companies can afford these knowledge resources too. Moreover, the development of junk bonds has made it possible for knowledgeable outsiders to break up conglomerates if the performance of the conglomerate is inadequate. For these reasons single companies nowadays have opportunities which equal those of conglomerates. One can add that the knowledge resources of subsidiaries of a conglomerate may also have increased and that this has reduced the relative power of conglomerate headquarters.

If single companies or divisions are on an equal footing with conglomerates, one might ask why conglomerates still exist. A variety of reasons may come to the fore (Funk, 1999), but a major suggestion is that conglomerate financing and the internal reallocation of money across subsidiaries may have benefits. Stein (1997), for example, suggests that a corporate headquarter may be better than an outside bank in finding winning investment opportunities and that, in this sense, a conglomerate headquarter can add value to a diversified firm. Scharfstein (1998), however, finds evidence that divisions in high potential industries tend to invest less than their stand alone industry peers, while the reverse is true for the low potential divisions. Also Shin and Stulz (1996) find that in general the conglomerate fails to allocate more funds to divisions in industries with better investment opportunities. Furthermore, Rajan, Servaes and Zingales (2000) show that diversified firms tend to trade at a

discount in comparison to comparable firms and that the discount is positively related to the extent of investment misallocation and the diversity of the investment opportunities across divisions. In particular when headquarter has limited power, funds may be allocated to the "wrong" investment projects. This is corroborated by Mudambi (1999), who found that when a headquarter grants more power to subsidiaries, the functioning of the internal capital market will be hampered.

Khanna and Tice (2001), however, suggest that conglomerate discounts are mainly found within samples of unrelated diversifications. Conglomerates with unrelated subsidiaries have more problems with internal financing, than conglomerates where all subsidiaries are active in the same line of business. In the latter case there are less possibilities for managers of subsidiaries to misinform corporate headquarters on preferred local investment opportunities. Moreover, managers may be transferred more easily from one subsidiary to another and they may therefore be less inclined to favour their subsidiary with irrational investments. Finally, Burch, Nanda and Narayanan (2000) suggest that conglomerate discounts are caused by the fact that mainly firms of lower quality prefer to participate in conglomerates.

Thus theory and empirical research on conglomerates, in general, suggest that lower quality companies in unrelated conglomerates with weak headquarters may be able to obtain financing for poor investments. In this paper we will suggest that the developments in the euro zone strengthen (and have strengthened) the power of

conglomerate headquarters and therefore may help (and have helped) to reduce the impact of conglomerate discounts.

3. Liberalisation, deregulation and financial transactions

In this section we discuss the impact on the choices available to multinationals of liberalisation and deregulation within the euro zone. Developments outside the euro zone that affected the developments within the euro zone (e.g. those within the European Union in general) will also be discussed.

Previously, transfers of company cash flows in Europe were obstructed by taxes on dividends, royalties and interest payments and by high transfer tariffs levied by banks. In 1990 two directives on dividend transfers ⁵ and on royalties and interest payments ⁶ were issued. The first directive stated that withholding taxes on intracompany dividends throughout the EU had to be abolished. It became effective in 1992 (only Germany, Portugal and Greece were allowed to maintain withholding taxes temporarily). The other directive forbids intracompany withholding taxes on

⁵ Council Directive 90/435 of 23 July 1990 on the common system of taxation applicable in the case of parent companies and subsidiaries in different Member States, OJ EC L225/6 of 20 August 1990; see also Corrigendum to Council Directive 90/435 of 23 July 1990 (OJ EC L23/35 of 29 January 1991).

⁶ Proposal for a Council Directive on a common system of taxation applicable to interest and royalty payments made between parent companies and subsidiaries in different Member

royalties, operational lease and interest payments in the European Union. Currently, further harmonisation of these withholding taxes throughout the EU is strived for, while corporate tax rates are already converging in the EU (Austin, 1999).

Because banking tariffs for intra-EU cash flow transfers were judged to be high throughout the EU (transactions often being charged twice; at both the payer and the receiver levels), the European Commission enforced legislation here as well ⁷. As a result, European banking tariffs were reduced severely, but only gradually.

While financial liberalisation can be said to refer to the lifting of restrictions on international capital markets, financial deregulation refers to the same activity in domestic markets ⁸. Previously, the domestic regulations were intended to prevent concentrations and distortions in the local financial systems. These regulatory frameworks, however, were both ineffective and inefficient (Friedman and Friedman, 1980). Later deregulation was aimed at free trade in all financial products and services, and at giving financial institutions a free choice on the location of their affiliates. Such deregulation has been facilitated by changing government attitudes and enforced by a number of Directives of the European Union ⁹.

States - COM (90) 571, OJ EC C53/26 of 28 February 1991.

⁷ Council directive 97/5/EC on cross border credit transfers, OJ EC L43 of 14 February, 1997.

⁸ Although the trend in Europe is directed towards deregulation, in some cases regulations (e.g. concerning liquidity and solvency of financial institutions) have become stricter.

⁹ Second Council Directive 89/646 of 15 December 1989 on the co-ordination of laws, regulations and administrative provisions relating to the taking up and pursuit of the business of credit institutions and amending Directive 77/780, OJ EC L386/1 of 30 December 1989; Council Directive 89/299 of 17 April 1989 on the own funds of credit institutions, OJ EC

Although the EU directives concerning the deregulation of financial markets and institutions were only implemented in the nineties, the changes are already remarkable. A bank that is authorised in one European country can establish affiliates in the other member states ("Single Banking License"). This enables previously foreign banks to become domestic banks and quite some large banks have already established presence throughout most European countries. In view of the ruling of the Court of Justice in the Cassis de Dijon case ¹⁰, a (financial) product authorised in one EU member state may also be marketed in all other member states. Issuance of new financial instruments, such as interest and currency futures, options and swaps, and also commercial paper, medium term notes and bullet loans, are now allowed in most of the European countries and limitations on debit and credit interest levels have been removed throughout Europe.

It will be clear that these developments offer multinationals the option of concentrating their financing. With respect to the transfer of funds from one country to another, market imperfections based on taxes, tariffs and other regulations have been reduced. Moreover, the costs of using the banking system have diminished: bank charges have dropped and transfers can be taken care of by just one bank that operates in many countries. Finally, the variety of financial products has also increased. Previously, a perceived need to use additional or new financial instruments

L124/16 of 5 May 1989; Council Directive 89/647 of 18 December 1989 on a solvency ratio for credit institutions, OJ EC L386/14 of 30 December 1989.

forced European multinationals to finance themselves within the countries where these instruments were available. Now, all financing instruments are allowed in all the countries, and financial innovations in one country can be used in another country as well.

4. A single currency and market imperfections

The European Monetary System (EMS) was established in 1979 to mitigate the fluctuations between the European currencies. France and Germany were among the founders of the EMS. Several countries have joined the Exchange Rate Mechanism (ERM) of the EMS since, though a few of them dropped out again later. In 1988 the EU-countries agreed on a new directive¹¹ to abolish mutual exchange controls, which was effective for most countries in 1993. Only Portugal and Greece were allowed to postpone the implementation of this directive to the full extent until 1995. The controls that were lifted were quite substantial. Belgium and Luxembourg (both using the Belgian Franc), for instance, removed their two-way classification system of transactions, which had formerly led to two currency rates for the franc. In Italy

¹⁰ Case 120/78 Rewe v Bundesmonopolverwaltung für Branntwein (1979) ECR 649.

¹¹ Council Directive 88/361 of 24 June 1988 for the implementation of Article 67 of the Treaty, OJ EC L178/5 of 8 July 1988.

capital movements were no longer restricted to a maximum amount. In Spain foreign funding of local firms was now possible, as it also became in Ireland. Spain also lifted restrictions on foreign currency bank accounts and Ireland removed all restrictions on currency flows to non-residents.

Until 1992 the EMS currencies maintained relative mutual stability and an Economic and Monetary Union (EMU) was thought to be a logical follow-up of the plans for a Single Market (Gibson, 1996). In this context, the three-stage Delors Plan was accepted in December 1989. In the first stage all currencies of the European Union would join the ERM and exchange controls would be removed. In 1992 these goals were achieved by and large. However, due to for example the German unification in 1990, the ERM de-stabilised. In September 1992, the British pound and the Italian lira dropped out of the ERM. Until August 1993, the currencies of the ERM- countries were allowed to fluctuate within 2.25% (+ or -) around the central rate. Following, all currencies (except the Dutch guilder vis-à-vis the German mark) kept 15% (+ or -) around the central rate. Parity changes had to be approved by all countries, which had the joint responsibility of maintaining stable mutual currency rates. Nevertheless, only a few countries were able to meet the ERM convergence criteria with respect to inflation levels, long term interest rates, government deficits, government debt and currency stability, and consequently many countries then doubted the feasibility of the EMU. In the second stage, however, monetary policies of the member states were knitted together, resulting in more convergence. Italy

returned to the ERM, while several other countries were joined. In the third stage, which started in 1999, the parity rates were fixed irreversibly and the euro was established as a single inter-bank European currency. It became the symbol of an integrated European monetary policy within the euro zone and it enables the transformation from all local currencies into a single currency at the beginning of 2002.

One major consequence of a single currency is that transaction costs for exchanging currencies are annihilated. The transfer of money from one country to another thus becomes cheaper. Concentrating cash management in one country in order to reap the benefits of economies of scale (and financial power) becomes feasible. Not only are the external costs of exchanging currencies abolished, but so also are the internal costs originating from the need to perform currency recalculations and to assemble information on currency prices. Another important consequence of one single currency is that various types of exchange risk (transaction, translation and economic risk) diminish for multinationals that operate within the euro zone. When these risks threaten the solvency of a company, their abolition reduces bankruptcy costs and so the liquidity needed for coping with bankruptcy costs diminishes. Therefore, cash balances can become more concentrated and the total amount of cash needed becomes smaller than it would be with

subsidiaries working with separate currencies¹². Moreover, headquarters (or at least concentrated corporate treasuries) will have greater power, as more money is channelled through them.

5. Centralisation and disintermediation

Typically, the cash management system of a multinational in the euro zone has traditionally been structured in a simple way. In every country where the company had substantial operating facilities, the treasury of the affiliate often largely did its own cash management (Soenen and Aggarwal, 1989; Tse and Westerman, 1997). This was a rational approach because of the imperfections in the European capital markets. After liberalisation, deregulation and the introduction of a single currency, these market imperfections have diminished quite significantly along with the costs of centralising the finance function.

Centralisation

Centralisation offers various advantages (Kenyon et. al., 1992; Brown, 1997; Miles, 1997). Firstly, concentrating financing gives economies of scale and negotiating

¹² Multinationals do not necessarily have less liquid resources than other companies, because they may need more liquidity for other reasons, like being able to finance take-overs

power. Secondly, because cash balances, cash flows and risk exposures are decreased, financing costs are reduced further. Thirdly, leading and lagging of intracompany cash flows can more easily be traced and controlled. Fourthly, an overall reduction of treasury personnel throughout the firm may be possible. Fifthly, the services of banks in transferring cash may be reduced and the concomitant costs can be reduced. Moreover, the benefits of internal financing may be more easily reaped, as the concentration of financial know-how helps to improve investment decision making.

There are, however, also various disadvantages. Local managers may lose the motivation to control cash flows adequately. When the cash management and finance functions are in the hands of headquarters, the co-ordination between the financial disciplines and the local knowledge may more easily be frustrated. Moreover, a centralised cash system requires a highly formalised cash balance control system, thus raising regulative, administrative and information costs. Finally, internalising and reorganising the cash balances may disturb relationships of subsidiaries with local banks.

The disadvantages of centralised European cash management, however, decline (Van Alphen, 1998). Moreover, netting and pooling of cash positions gain attractiveness and a trend towards centralised treasuries is already apparent (Peters, 1999). In fact even non-European multinationals have reorganised their European treasury operations along Pan-European lines. For example, the Goodyear Tyre and

quickly.

Rubber Company formally incorporated a European treasury centre in Luxembourg. That treasury now provides access to capital markets, establishes and maintains bank relationships, manages currency exchange risk, develops intercompany transaction strategies, negotiates credit terms with banks, evaluates cash utilisation and establishes guidelines for SBU cash management, among others (Brown, 1997, p. 36). We expect that deregulation and liberalisation as well as the introduction of the Euro may have helped to tip the balance in favour of centralisation and may still be continuing to do so.

Disintermediation

The form a cash management system takes is not only determined by internal characteristics. It also involves external relationships, in particular with banks and it is not surprising that European firms consider their relationship with a bank almost as important as banks' prices and service quality (Tse and Westerman, 1997).

The external relationships evolve with centralisation over time. First the banking system is used to collect receivables and to pay accounts. The relationship with the "house banks" is asymmetrical: the house bank provides a wide array of products that firms can use. Then the tendency may evolve to centralise cash management and the multinational will aim at processing efficiently the various financial transactions of the operational units. This may lead to a substantial decrease in the number of bank accounts, since little used accounts will be closed. The finance

department of a multinational will be starting to act as a purchasing unit and the relationships with banks will be loosened as "shopping" with other banks grows and financial knowledge at headquarters is enlarged.

Still later, the cash function within the multinational may develop into a corporate finance function that acts in balancing conflicting objectives like minimising tax and interest payments, reducing interest risks and providing liquidity. Banks with international networks, know-how and information systems skills may then shift to providing services instead of products to such departments. In fact, some large financial institutions have picked up the recent trends, by expanding their services to more countries and by investments in sophisticated information systems to be used in the operation of European cash management systems.

Finally, the corporate finance function of a multinational may act as an in-house bank (Hagemann, 1991). Such an in-house bank provides intracompany products and services by itself, issues short-term financial instruments like commercial paper, competes with other banks for the business of third-party customers and has thus become an equal partner for licensed banks. It will be clear that the aforementioned centralisation trend goes to the detriment of the intermediary function of banks.

6. Headquarters' control and conglomerate discounts

The joint trends of centralising the cash function and of disintermediation will have their impact on the power of the multinational's headquarter. Centralisation will, generally, take place at headquarters, and may positively influence the power of headquarters with respect to cash management. As the headquarters' lack of power in financing and investing was a major reason for corporate discounts, the centralisation of cash management may reduce these discounts.

Headquarters' power may further increase with disintermediation. Firstly because fewer banks are involved and the bank that remains most relevant for the multinational will have its main ties with headquarters. Secondly, if the cash management function develops into a corporate finance function also external financing will be channelled through headquarters and then -again- the financial power of headquarters will increase. For these reasons, we expect that the liberalisation, deregulation and introduction of a single currency will improve the internal financing function and that conglomerate discounts will decrease.

However, not all multinationals will be able to centralise the cash function directly (Gruiters and Bergen, 1998) and the centralisation of European cash management still differs between companies (Tse and Westerman, 1997). Moreover, not all multinationals will be able or willing to develop the cash management function into a corporate finance function. Finally, even if a corporate finance function is

managed centrally at the corporate headquarter, it is not necessarily the case that also decisions on fixed assets will -or should- be centralised. Conglomerate discounts based on a lack of power of headquarters with respect to internal financing and investments will thus not vanish within all multinationals. Nevertheless, it is likely that the developments in the financial markets assist in reducing conglomerate discounts for some multinationals in the euro zone ¹³.

7. Conclusions

Liberalisation and deregulation of financial markets as well as the introduction of the single currency in Europe will reduce transaction and bankruptcy costs for multinationals. This gives rise to two trends in Europe. Firstly, internal transfers of cash and the management of residual cash positions will become cheaper and easier. Therefore, the centralisation of cash management activities gains attractiveness. This may even result into a full-fledged corporate finance function at headquarters. Secondly, the centralisation will affect the relationship of multinationals with banks. It is likely that the number of bank relations will be reduced, as more money is

¹³ Conglomerate discounts cannot solely be responsible for the comparable low price earnings ratios in most euro zone countries (Eiteman, Stonehill and Moffett, 2001), but our analysis suggests that deregulation, liberalisation and a single currency may increase these ratios into the direction of those of the United States.

managed internally within multinationals and that one major bank will provide most of the cash management services to the treasuries at multinationals' headquarters.

These trends will have an impact on the internal financing function of multinationals and if cash management is centralised, conglomerate discounts may diminish. Multinationals in the euro zone may benefit further if they also operate in countries that will join the European Union or the euro zone in the future. Because multinationals have different backgrounds and different reasons for empowering subsidiaries, the corporate discounts will not vanish completely.

Until now, academics have largely focused on cash management models and on cash management surveys. Our paper is different as we link the cash management function to mainstream theory of corporate finance. First we suggest that institutional changes within the euro zone have reduced market imperfections. Then we show that the reduction of these imperfections could trigger centralisation and disintermediation. Finally, we suggest that centralisation followed by disintermediation may improve the internal financing function within multinationals. This may eventually diminish conglomerate discounts and improve the value of the multinational.

It is outside of the scope of this paper to answer the empirical question whether the centralisation of cash management is beneficial to multinationals. Nevertheless, further empirical research might be interesting. In particular, it would be interesting to learn whether multinationals that centralise their cash management

function do indeed outperform in terms of value the comparable multinationals that did not. Our analysis not only suggests that centralisation creates value, but that the concomitant disintermediation adds value too. Researchers could therefore, also try to measure the amount of disintermediation and study its impact on conglomerate discounts. Of course, such research may create multicollinearity problems because disintermediation will be related to centralisation. Moreover, econometric simultaneity problems may arise: disintermediation is considered to create value, but at the same time higher valued companies may be better able to avoid banking products. Despite of these problems, we hope that our qualitative approach may not only trigger related theoretical but also empirical research.

References

- Alphen, W. van (1998) Optimising your Euro cash and treasury management, *Treasury Management International*, Special Report International Cash Management, 24-29.
- Austin, L. (1999) The implications of the euro, *The Treasurer*, April, 43-55.
- Baker, G.P. (1992) Beatrice, a study in the Creation and Destruction of Value, *The Journal of Finance*, Vol. 47, July, 1081-1119.

Brown, R.A. (1997) The case for regional treasury centres, *Treasury Management International*, issue 55, September, 36-39.

Burch T.R., V. Nanda & M.P. Narayanan (2000) *Industry Structure and the Conglomerate "Discount": Theory and Evidence*, University of Michigan Business School, Working Paper 00-018, August.

Eiteman, D.K., A.I. Stonehill & M.H. Moffett (2001) *Multinational Business Finance*, Boston, Addison Wesley.

Friedman, M. & R. Friedman (1980) *Free to Choose: a Personal Statement*, New York, Harcourt Brace Jovanovich.

Funk, J. (1999) Wie schaffen diversifizierte Unternehmen Wert?, *Zeitschrift für betriebswirtschaftliche Forschung*, 759-772.

Gibson, H.D. (1996) *International Finance: Exchange Rates and Financial Flows in the International System*, London, Longman.

Gruiters, M. & J. Bergen (1998) A euro cash pool before 2000?, *Treasury Management International*, issue 62, April, 20-24.

Hagemann, H. (1991) Should your company be a "corporate bank"?, *The McKinsey Quarterly*, number 4, 19-34.

Hill, N.C. & W.L. Sartoris (1995) *Short-Term Financial Management: Text and Cases*, New York, Macmillan.

Horne, J.C. van (2002) *Financial Management and Policy*, Prentice Hall, Upper Saddle River, N.J.

- Jensen, M.C. (1986) Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, *American Economic Review*, Vol. 76 no. 2, May, 323-329.
- Kenyon, A. et al. (1992), Centralization vs Decentralization, *The Treasurer*, February, 5-24.
- Khanna, N. & S. Tice (2001) The Bright Side of Internal Capital Markets, *The Journal of Finance*, Vol. 56, No.4, August, 1489-1528.
- Maness, T.S. & J.T. Zietlow (1998) *Short-Term Financial Management*, Orlando, Harcourt Brace.
- Markowitz, H. (1952) Portfolio Selection, *Journal of Finance*, 7, March, 77- 91.
- Miles, J. (1997) Multi-currency pooling - taking the plunge, *Treasury Management International*, issue 56, October, 33-38.
- Miller, M.H. & Modigliani F. (1961) Dividend Policy, Growth and the Valuation of Shares, *Journal of Business*, 34, October, 411-433.
- Modigliani, F & M.H. Miller (1958) The Cost of Capital, Corporation Finance, and the Theory of Investment, *American Economic Review*, 48, No. 3, 261-297.
- Mudambi, R. (1999) MNE Internal Capital Markets and Subsidiary Strategic Independence, *International Business Review*, Vol. 8, No. 2, 197-211.
- Peters, M. (1999) *Cash management in euroland*, London, Arthur Andersen Treasury Management International.
- Rajan, R., H. Servaes & L. Zingales (2000) The Cost of Diversity: The Diversification Discount and Inefficient Investment, *Journal of Finance*, Vol. 55, No.1, 35-80.

- Scharfstein, D.S. (1998) *The Dark Side of Internal Capital Markets II: Evidence from Diversified Conglomerates*, NBER Working Paper, no. 6352, January.
- Sharpe, W. (1964) Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk, *Journal of Finance*, 19, 425-442.
- Shin, H.-H. & R.M. Stulz (1996) *An Analysis of Divisional Investment Policies*, NBER, Working Paper 5639, June.
- Soenen, L.A. & R. Aggarwal (1989) Cash and Foreign Exchange Management, Theory and Corporate Practice in Three Countries, *Journal of Business Finance and Accounting*, 16, Winter, 599-619.
- Stein, J.C. (1997) Internal Capital Markets and the Competition for Corporate Resources, *The Journal of Finance*, Vol. 52, no. 1, March, 111-133.
- Tse, K.L. & W. Westerman (1997) Eurocash '94: Pan-European Cash Management in The Netherlands, in: W.M. van den Bergh et al., *Financiering en Belegging 1997*, Rotterdam, Erasmus University, 198-227.